



City of Springfield  
**FOG Management Plan**

A City of Springfield collaborative program designed to reduce  
Fats, Oils, and Grease  
entering the City wastewater collection system

City of Springfield  
Public Works Department  
Wastewater Operations  
(417) 864-1923

**March 8, 2006**

## ACKNOWLEDGEMENTS

City of Springfield Staff developed this FOG Management Plan over a period of five months in 2005 and early 2006. The FOG Team's goal was to create a practical plan that will serve as a manual for food service establishments, Sanitary Services Staff, Health Department Staff, Building Development Services, and others for the control of FOG (Fats, Oil and Grease) that could enter and plug the sanitary sewer collection system. The plan was developed based on research and consideration of elements taken from other FOG plans used by POTWs across the country. A series of four on-site workshops were conducted in Springfield and concluded on February 2, 2006.

The following individuals are acknowledged for the hard work, diligence and professional input they provided to the FOG Management Plan:

Mr. Ed Malter, P.E.	Superintendent of Sanitary Services
Ms. Lana Woolsey	Assistant City Attorney
Mr. Seward Meintsma, P.E.	Professional Engineer, Building Development Services
Mr. Eric Zackrison	Restaurateur
Mr. Ray Greer	Greer's Pumping
Mr. Randy Lyman	Environmental Compliance Officer
Ms. Barbara Lucks	Materials Recovery/Education Coordinator
Mr. Jim Burks	Laboratory Supervisor
Mr. David Renkoski	Public Health Investigator II
Ms. Jodi Daniel	Public Health Investigator
Mr. John Waitman	Pretreatment Inspector
Mr. Gene Pabst	Pretreatment Inspector
Ms. Karen Chandler	Water Pollution Inspector
Ms. Carrie Lamb	Stormwater Division
Ms. Dana Swearengen	Licensing
Mr. Wayne Latimer	Supervisor – Sewer Maintenance (Retired)
Mr. Jim Peters, P.E.	Project Manager, Brown and Caldwell
Ms. Hala Sfeir, Ph.D., P.E.	Project Engineer, Brown and Caldwell
Ms. Louise Lewis	Administrative Assistant, Brown and Caldwell

## Table of Contents

<b>BACKGROUND</b> .....	1
<b>I.</b> Purpose and Intent .....	1
<b>II.</b> Definitions .....	2
<b>III.</b> Installation of FOG Management Equipment.....	5
<b>IV.</b> FOG Management Requirements .....	6
<b>V.</b> Establishment Exemptions .....	7
<b>VI.</b> Common FOG Interceptors.....	8
<b>VII.</b> FOG Equipment Maintenance.....	9
<b>VIII.</b> Discharge Limits .....	11
<b>IX.</b> FOG Minimization.....	11
<b>X.</b> Enforcement.....	12
<b>XI.</b> Authority of Inspectors – Right of Entry .....	13

### APPENDICES

<b>Appendix A</b>	Food Service Establishment Checklist
<b>Appendix B</b>	FOG Management Plan Sample Permit
<b>Appendix C</b>	Diagram of Typical 1,000 Gallon Outdoor Interceptor
<b>Appendix D</b>	Diagram of a Typical Wastewater Sampling Manhole
<b>Appendix E</b>	City of Springfield Grease Disposal Manifest

## BACKGROUND

Fats, oil, and grease (FOG), primarily generated from restaurants and other food service establishments, are major contributors to wastewater collection system blockages and overflows. Food service establishments include, but are not limited to, mall food courts, food manufacturers, food packagers, restaurants, grocery stores, bakeries, lounges, hospitals, hotels, nursing homes, and schools. Residential apartment and condominium complexes can also be major sources of FOG in wastewater.

The City of Springfield currently maintains in excess of 1250 linear miles of wastewater collection system sewers. In order to adequately protect human health and safeguard the beauty and quality of southwest Missouri's natural resources, the City of Springfield has developed this FOG Management Plan in efforts to prevent wastewater discharges due to FOG material blockages within the wastewater collection system. The vast number of food service establishments within the City of Springfield wastewater collection service area requires FOG material to be removed from their wastewater prior to entering the City's wastewater collection system. This management plan outlines the responsibilities of each food service establishment to do their part in order to achieve the City's goal in preventing FOG blockages.

The following FOG Management Plan was collaboratively developed with the assistance of City Building Development Services, Health Department, and Public Works staff, as well as with input from consultants and the local restaurant community. The positive effect of this plan will only be observed when all responsible parties and FOG sources fully participate in meeting the City's goal of preventing wastewater discharges due to FOG material.

### **I. Purpose and Intent**

The purpose of this program is to provide the implementation of a fat, oil, and grease (FOG) management program providing protection for the City of Springfield (City) wastewater collection and treatment systems and associated equipment.

The objective of the FOG management program includes, but is not limited to:

- The minimization of the introduction of and/or removal of FOG and other soluble material associated with food preparation discharged to the City wastewater collection system.
- Provide effective means of interception and removal of FOG and associated soluble material through proven effective FOG interceptors and Grease Recovery Units.

The program shall apply only to commercial food preparation establishments connected to the City of Springfield wastewater collection system. The program shall also apply to any commercial facility where the City of Springfield wastewater collection system is available and reasonably accessible, whether connected to the wastewater collection system or not.

## II. Definitions

**Automatic Grease Recovery Unit** - A device, by design, to separate grease from wastewater within the unit and automatically discharge accumulated grease material to a separate container for disposal. The automatic grease recovery unit shall be certified by and conform to applicable International Plumbing Code (IPC) standards. Examples of automatic grease recovery units are, but are not limited to Thermaco “Big Dipper”, Zurn “1190” system, and Josam GI-2000A.

**Building Sewer** - The part of the wastewater drainage system which extends from the building drain and conveys wastewater to a Public Owned Treatment Works (POTW), private sewer, individual wastewater treatment system, or other point of discharge.

**City** - Herein referring to the City of Springfield, Missouri.

**Common Grease Interceptor** - A device to which grease wastes are directed from more than one facility with different operators, type of operations and/or owners, such as within a food court or within a shopping center.

**Contact Person** - The Contact Person shall mean the individual responsible for overseeing daily operation of the Food Service Establishment (FSE) and who is responsible for overseeing the FSE’s compliance with the FOG Management Program as established herein. The contact person shall be the responsible person(s) named to be responsible in a signed and legal document for operation and maintenance of a common grease interceptor.

**Decant** - Term typically used to refer to the process of removing FOG contaminated wastewater from a FOG interceptor, allowing lighter weight fractions of the FOG material to rise to the top, and placing the heavier water and solids back into the interceptor.

**Director of Public Works** - Hereafter also referred to as “Director” means the Director of the Public Works Department of the City of Springfield or his authorized representative.

**Domestic Waste** - The waterborne wastes derived from ordinary household living processes, including, but not limited to, waters from water closets, urinals, lavatories, sinks, bath tubs, showers, household laundries, household garbage grinders, and drinking fountains.

**Environmental Protection Agency** - Also referred to as EPA, means the U.S. Environmental Protection Agency, or where appropriate the term may also be used as a designation for the administrator of the EPA or that person’s designee.

**Fats, Oils, and Grease (FOG)** - Herein referred to as FOG, meaning animal and plant derived substances that may solidify or become viscous between temperatures of 32°F - 150°F (0°C - 65°C), and that may separate from wastewater by gravity. Term also identified as any substance identified as grease per the most current EPA method as listed in the Code of Federal Regulations 40 CFR 136.

**FOG Management Equipment** - Properly and legally installed and operated FOG removal equipment, including but not limited to indoor and outdoor grease interceptors, grease and solids trap combination units, and/or Grease Recovery Units as approved by the City of Springfield.

**Food Courts** - Designated areas that are predominately found in shopping centers, malls, or amusement parks that contain several food preparation or serving establishments with different owners that share seating space and plumbing facilities.

**FSE** - Food Service Establishment or facility that uses food preparation processes and that is regulated by the Health Department. These facilities include, but are not limited to, restaurants, hotel/motel kitchens, hospitals, school kitchens, bars, factory cafeterias, clubs, delis, kiosks, tea rooms, snack bars, ice cream shops, fudge shops, food courts, coffee shops, cafeterias, diners, and any other facility considered to produce fats, oils, and grease originating from animal or vegetable sources and/or dispose of their waste product.

**Garbage Grinder** - Any device that shreds or grinds up solid or semisolid animal and vegetable wastes resulting from the domestic or commercial handling, storage, dispensing, preparation, cooking, and serving of foods.

**Generator** - Any user by site or facility who produces wastes from the user's process operation(s).

**Grab Sample** - A sample taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen (15) minutes.

**Grease Interceptor** - A device designed for flows in excess of fifty gallons per minute (>50 GPM). The device is installed outside of the building and functions to separate and retain grease from the normal sewage flows while allowing the balance of the liquid wastewater to discharge to the collection system by gravity. Herein, a grease interceptor may also be referred to as a FOG interceptor.

**Grease Recovery Unit (GRU)** - All active indoor mechanical systems designed to remove fats, oils, and grease by physical separation from flowing wastewater, as further defined herein.

**Grease Trap** - A term to typically describe an indoor device designed for smaller quantities of flow, typically designed for flows up to fifty gallons per minute (<50 gpm) installed to separate and retain all fats, oils, and grease from wastewater flow while allowing the balance of the liquid wastewater to discharge to the collection system by gravity.

**Kiosk** - A small structure with one or more open sides.

**Permit** - A non-transferable City of Springfield permit issued to a generator of FOG bearing wastewater detailing the type and cleaning frequency of FOG management equipment used by the generator. A FOG permit is typically issued for a 5-year period.

**Person** - Any individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, governmental entity, or any other legal entity, or their legal

representatives, agents, or assigns. The masculine gender shall include the feminine and the singular shall include the plural where indicated by context.

**Program** - Referring to the City of Springfield FOG Management Program.

**Publicly Owned Treatment Works (POTW)** - Means a treatment works as defined by section 212 of the Act (33 USC 1292), which is owned by the City. This definition includes the sanitary sewers of the city and any device and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes, and other conveyances only if they convey wastewater to a POTW treatment plant. The term “POTW” shall also include any sewers that convey wastewaters to the POTW from persons outside the city limits of Springfield who are by contract or agreement with the City, users of the City POTW.

**Public Sewer** - A sanitary sewer, other than a building sewer, within or without a public easement or right of way, and in which all owners of abutting properties have equal rights, and which is controlled by the City of Springfield.

**pH** - The logarithm of the reciprocal of the hydrogen ion concentration expressed as grams per liter of solution as determined by the latest edition of *Standard Methods for the Examination of Water and Wastewater*.

**Renderable Fats, Oils, and Grease** - FOG not contaminated by contact with wastewater, other waste material, or cleaners and which a rendering company can recycle as products such as “white” or “yellow” grease. Renderable fats, oils, and grease sources include fryers, grills, and exhaust hoods, and shall be kept separate from FOG material that has contacted wastewater, other waste material, or cleaners which potentially cause renderable FOG material to become unable to be recycled or rendered.

**Renderable Fats, Oils, and Grease Container** - A closed, leak proof and watertight container for the collection and storage of food grade and/or recyclable fats, oils, and grease.

**Sanitary Sewer** - A sewer which conveys wastewater and to which stormwater, surface water, and groundwater is not intentionally admitted.

**Sewer** - A pipe or other conduit that carries wastewater.

**Sewer System** - The complete municipal sewer system, including sanitary sewer mains, manholes, lift stations, lateral sewer lines, and other sewer facilities constructed or acquired by the City of Springfield, together with all improvements, extensions and additions to the sewer system, or any part thereof.

**Solids Interceptor** - A device typically installed to remove both organic and inorganic solid material to prevent a blockage within a FOG interceptor.

**Shall** - The term “Shall” as described and used herein has a meaning indicating a mandatory condition or situations. The term “may” as described and used herein has a meaning of a permissive condition or situation.

**User** - The owner or occupant of property or premises that is connected directly or indirectly has available to the property or premises, the facilities or use of the POTW.

**Wastewater** - The industrial waste or domestic waste bearing water from any source that is contributed into or permitted to enter the POTW which requires physical, chemical, or biological treatment prior to discharge to waters of the State of Missouri.

**Abbreviations** - For purposes of this document, the following abbreviations shall have the designated meanings:

CAM	Common Area Maintenance
CFR	Code of Federal Regulations
City	City of Springfield
EPA	Environmental Protection Agency
FSE	Food Service Establishments
GPD or gpd	Gallons per Day
GPM or gpm	Gallons per Minute
GRU	Grease Recovery Unit
IPC	International Plumbing Code
L	Liter
mg	Milligram
mg/L	Milligrams per liter
PDI	Plumbing and Drainage Institute
POA	Property Owners Association
POTW	Publicly Owned Treatment Works

### III. Installation of FOG Management Equipment

The City of Springfield will obtain information for all new and existing Food Service Establishments as detailed in the Food Service Checklist (**Appendix A**).

All new and existing Food Service Establishments shall install a FOG interceptor, subject to the following exceptions and exclusions described herein.

All wastewater and/or waste containing FOG from a FSE shall be directed to and through some type of FOG management equipment. Individual users of FOG management devices shall obtain a permit issued by the City detailing required cleaning frequency. It shall be unlawful to operate FOG management equipment without possessing a valid City of Springfield permit. It shall be unlawful to allow stormwater to contact or become contaminated by FOG.

Sanitary facilities and other similar fixtures containing domestic waste shall not discharge to the grease interceptor unless determined necessary by the City.

In the event that the Director of Public Works, or delegated City official acting upon the Director's behalf, determines the FSE cannot install a FOG interceptor due to physical limitations or other extreme circumstances, the FSE shall install a GRU capable of maintaining compliance with the City's local limit for FOG concentration within wastewater coming from the user.

All FSEs requiring FOG management equipment shall submit the design and specifications for review as part of the City's building permit process. All costs and related expenses associated with the installation and connection of FOG management equipment shall be borne by the FSE. Proper operation, maintenance, and repair shall be accomplished solely at the user's expense. The FSE shall indemnify the City of Springfield and its Agents for any loss or damage that may directly or indirectly occur due to the installation of the FOG management equipment.

All FSEs requiring FOG management equipment shall immediately designate a Contact Person and shall inform the Public Works Department of the City of said designation. In the event the contact person changes for whatever reason, the FSE is responsible for contacting and informing the City Public Works Department of a new designation of the Contact Person.

Where surface runoff from a garbage compactor or grease dumpster is generated, a grease interceptor shall be installed between the compactor and the POTW. All stormwater shall be prevented from entering the wastewater collection system.

#### **IV. FOG Management Requirements**

It shall be unlawful to operate FOG management equipment without possessing a valid City of Springfield permit detailing required cleaning and maintenance frequencies, as detailed in **Appendix B**. Typically, the FOG permit will be issued for a period of 5 years and will be renewed by the City at the end of the 5-year period after a review of facility permit compliance.

FOG management equipment shall be provided in all areas where required by the International Plumbing Code, as adopted by the City. Kitchen fixtures or plumbing that conveys FOG bearing wastewater shall not be bypassed. The standard City FOG management equipment requirement consists of a 1000-gallon outdoor interceptor, as illustrated in **Appendix C**, followed by a standard sampling manhole, as detailed in **Appendix D** of this document. Outdoor units of additional capacity or additional 1000-gallon outdoor units shall require installation if deemed necessary by the Public Works Department as needed. A variance from installing the standard 1000-gallon outdoor unit may be requested by an FSE. In locations where a variance from the standard 1000-gallon outdoor unit is approved by the City, FOG management equipment and all associated plumbing shall be installed in accordance with the International Plumbing Code, and FOG interceptors shall be sized based on a total flow through rating. The total flow through rating shall be calculated as the total draining fixture unit (DFU) sum for all fixtures draining to the interceptor equal to the flow in gallons per minute (1 DFU= 1 GPM). A variance does not release any generator from compliance with other requirements of this FOG Management Program, and a variance may be revoked by the City if it is determined the equipment serving the FSE does not maintain routine compliance with the program. Should FOG Management Equipment other than the standard 1000-gallon outdoor unit be determined insufficient or unable to maintain compliance with this program, FOG management equipment no less than the standard 1000-gallon outdoor unit shall be installed.

The site or location of the FOG interceptor shall be at the discretion of the City. All FOG management equipment, including indoor flow restriction devices, shall be located in an area that provides uncomplicated access at all times of the day or night for inspection, cleaning, and maintenance, including regulatory inspection.

Upon installation, an authorized representative of the City shall inspect any new FOG interceptor before covering and allowing the unit to enter service.

The Contact Person at each FSE shall notify the City when the newly installed or repaired FOG interceptor or GRU equipment is ready for inspection and connection to the public sewer. The connection and testing shall be made under the supervision and approval of a City plumbing inspector.

All applicable IPC Codes and rules shall be followed during the installation of any plumbing fixtures or structures connecting to the POTW.

All food preparation and related wastewater flows shall be directed to FOG management equipment, including all kitchen floor drains and mop sinks. The installation of an outdoor FOG interceptor and associated plumbing shall meet all the requirements of the City plumbing code and be designed as detailed in **Appendix C**.

## **V. Establishment Exemptions**

The City requires FOG management equipment for all FSEs connected to the City POTW. The City also recognizes that exemptions from the minimum requirement of a 1,000-gallon inceptor must be made due to, but not limited to, differences in menu, cooking and/or cleaning procedures, and plumbing size. The following potential exemptions from standard FOG Management Equipment installations shall be individually reviewed:

- A.** No FOG Management Equipment shall be required for the following unless FOG deposits within the sanitary sewer can be proven to originate from the following:
  - 1. Limited Continental Breakfast- No FOG management equipment is required, as long as food is not prepared onsite, paper supplies only are used, and that dairy products are not discharged to the POTW from the location. The menu shall not exceed fruit, cereals, bagels, doughnuts, and biscuits, with or without gravy, with all gravy being a powder mixture or pre-mixed only. All dishes, pans, utensils, etc. used to heat or serve gravy must be fully disposable or otherwise removed and cleaned at an approved facility with properly operating and sized FOG management equipment.
  - 2. Sites where catered meals are distributed and consumed, as long as all dishes, pans, utensils, etc. are removed and cleaned at an approved facility with properly operating and sized FOG management equipment.

3. Food establishments which serve only pre-packaged foods, such as, but not limited to:
  - a. Prepackaged Ice Cream
  - b. Prepackaged Sandwiches
  - c. Prepackaged Fudge
  - d. Kiosks- Unless distributing or disposing of dairy products, or cleaning dishes, pans, or utensils that have contacted FOG material.
  
- B. An FSE that can document little to no FOG within their menu or that may reside in a location with limited space needed to install the 1000-gallon outdoor grease interceptor may choose to install indoor FOG management equipment. This type of FOG management equipment may be used, provided the equipment is sized adequately for the plumbing size and the unit is designed as well as maintained by the user to achieve City of Springfield local limits for wastewater FOG. Failure to maintain local FOG limits will require the installation of additional FOG management equipment to maintain rule compliance.

## VI. Common FOG Interceptors

More than one (1) business may connect to a common FOG interceptor, provided the grease trap sizing criteria for the common service area does not exceed the capacity of the FOG interceptor in use or planned for use. Each FOG generator shall be listed on a permit issued to each user of the unit. Again, failure to maintain local FOG limits will require the installation of additional FOG management equipment to maintain rule compliance.

- A. Prior to permitting, FOG interceptors serving more than one FSE and/or business must provide documentation of a signed and legal maintenance agreement between responsible parties, such as but not limited to:
  1. POA- Property Owners Association(s)
  2. CAM- Common Area Maintenance
  3. Agreement between owner/operator(s) showing physical responsibility for operation, maintenance, and cleaning of the FOG interceptor and all related piping and equipment.

**The purpose for FOG management equipment is to protect the POTW and other residential and commercial entities tributary to the City of Springfield wastewater collection system, and ultimately protect human health and the natural resources of the State of Missouri. Should the party responsible for adequate operation, maintenance, and/or cleaning of the common FOG interceptor and all related plumbing fail to fulfill their legal maintenance obligation, the City may determine to have the FOG interceptor and related equipment cleaned and/or repaired at the expense of the property owner.**

## VII. FOG Equipment Maintenance

- A. The FOG management equipment shall be continuously maintained in satisfactory and effective operation at the FSE's expense. The cleaning of the equipment shall be conducted as detailed in the City of Springfield permit issued to the operator of the equipment.
- B. All solid and liquid material from within the FOG interceptor shall be removed from the unit during pumping and cleaning. **Decanting or discharging of removed wastewater and/or associated material back into a FOG interceptor is prohibited.** The decanting process is not an acceptable cleaning procedure.
- C. The Contact Person shall be responsible for the proper removal of all material from within the FOG management equipment, which shall comply with all Federal, State, and City laws concerning transport and disposal of all material from the FOG management equipment.
- D. A record of all FOG management equipment maintenance activities, including cleaning records or hauled waste manifests, shall be maintained **on the premises** for a minimum of three (3) years.
- E. Chemical and/or biological additives that cause or could cause fats, oils, and/or grease fractions to be released from the FOG management equipment are **not** permitted without the written approval of the City Department of Public Works. The City of Springfield does not endorse chemical or biological treatment, as these materials could potentially cause accumulated FOG material to liquefy only to coagulate elsewhere in the wastewater collection system.
- F. The Contact Person shall ensure that the FOG interceptor is inspected when pumped to ensure that all internal fittings and fixtures are present and in good condition and functioning properly. Any deficiency is to be noted along with maintenance records retained at the premises. All material inside an interceptor, including both solids and liquids, shall be removed during pumping. All solids are to be scraped from the walls and sides of the interceptor to maintain internal volume capacity.
- G. The City, at any time, may take grab samples and conduct laboratory analysis of the wastewater discharged from any FOG management equipment to assure compliance with City local limits for FOG in wastewater (100 mg/L). City staff may visually inspect wastewater within a sampling manhole to determine the need for increased frequency of cleaning of FOG management equipment. Any buildup of grease within the sampling manhole piping shall indicate the need for an increase in cleaning frequency, regardless of past granted variances from the City.

- H. The City shall determine the frequency at which each FOG interceptor shall be pumped according to the following criteria:
1. The FOG interceptor shall be completely cleaned when 25% of the operating depth of the FOG interceptor is occupied by solids, either above the water level or below, or at a minimum of once every three (3) months, whichever is more frequent. This rule applies to both indoor and outdoor interceptors. Most FSEs are required to clean their outdoor FOG interceptor every one to three months.
  2. A FSE implementing an indoor grease interceptor must also possess an inline solids trap prior to the interceptor unit. This solids trap should be cleaned daily, at a minimum, or more often if wastewater flow is impeded in any way by solids collected within the unit. Solids removed from the solids trap are to be disposed of in the trash where other solid waste from the FSE is disposed. The solids may require bagging to prevent contact with insects, and any other human or animal contact that may spread disease or endanger human health.
  3. A FSE that implements an indoor grease interceptor must properly vent the plumbing system as directed by the IPC in order to adequately remove FOG.
  4. If the Contact Person can provide data demonstrating that less frequent cleaning of the FOG interceptor will result in FOG or related settled material less than of 25% of the operating depth of the FOG interceptor, the City may allow a less frequent cleaning schedule, with cleaning frequency not to exceed once every six (6) months.
  5. Any laboratory analysis of wastewater effluent from FOG management equipment in excess of the City local limit for FOG will warrant increased frequency of cleaning of FOG maintenance equipment. Should any FSE fail to meet the City local limit for FOG within their wastewater effluent (100 mg/L) or be identified as the source for repeated grease buildup within the wastewater collection system, the City may require the FSE to replace any or all FOG management equipment. If FOG management equipment is not currently in use, the City may require the installation of FOG management equipment to comply with local FOG wastewater limits.
  6. A maintenance log shall be maintained on the premises and shall include all copies of FOG disposal manifests detailing applicable dates, hauler name, and means of disposal for the material. The maintenance log shall be made available to the City for inspection upon demand. Interceptor cleaning and inspection records shall be maintained at the premises for a minimum of three (3) years.

- I. Should the FOG material be disposed of at the City of Springfield POTW, the hauler must possess a valid City of Springfield Waste Haulers Permit. Pumping of any FOG management equipment shall include the complete removal of all contents, including floating material, water, and settled material. **Decanting or placing previously pumped wastewater back into a FOG interceptor shall not be permitted and the activity and all parties involved in such activity shall be subject to legal prosecution by the City.** FOG removed from FOG management equipment shall not be mixed with other types of hauled waste, such as, but not limited to, septage and contaminated groundwater, but may be mixed with FOG wastes from other generators. All information concerning the cleaning activity shall be documented on a City of Springfield Grease Disposal Manifest (**Appendix E**).
- J. The Contact Person shall be responsible for the cost and scheduling of any repairs to FOG management equipment and associated components. Repairs required by the City shall be completed within forty-five (45) days after the date of written or verbal notice of violation to the Contact Person, unless detailed otherwise by the written notice of violation.

### VIII. Discharge Limits

- A. No FSE with or without FOG management equipment shall discharge, cause to be discharged, or place objects to be discharged along with any wastewater with an Animal/Vegetable FOG concentration in excess of one hundred milligrams per liter (100 mg/L), as determined by the approved analytical test for total recoverable Oil and Grease derived from Animal/Vegetable sources listed in 40 CFR 136, or in concentrations and/or quantities which will harm the POTW as directed by the Public Works Director or his appointed officer.

### IX. FOG Minimization

- A. The Contact Person shall make every practical effort to reduce the amount of FOG contributed to the City POTW.
- B. Renderable or recyclable FOG shall not be disposed into any sewer, septic tank, or FOG interceptor. All Renderable FOG shall be stored in a separate, covered, leak-proof container, stored out of the reach of vermin and collected by an approved waste hauler.
- C. Small quantities of FOG scraped or removed from pots, pans, dishes, grills, and utensils shall be directed to a trash receptacle for proper and legal solid waste disposal. All applicable solid waste laws, rules, and regulations, including Federal, State, and City of Springfield apply to the disposal of solid waste containing FOG contaminated material.

## **X. Enforcement**

- A.** It is unlawful for a person or entity to fail to comply with, or otherwise violate, the provisions of this section or any section of this FOG Management Program. A Notice of Violation (NOV) shall be issued to a FSE for failure to comply with the following requirements of this program:
1. Properly operate, maintain, and/or clean the FOG management equipment as detailed by this program or by the FOG permit issued to the user.
  2. Failure to possess a valid FOG permit issued by the City of Springfield.
  3. Report significant changes in operations or wastewater constituents and characteristics that result in violation of discharge limits for FOG.
  4. Maintain file records for a minimum period of three (3) years.
  5. Maintain plumbing equipment in compliance with IPC.
  6. Report pumping, cleaning, or maintenance activities to the City.
  7. Failure to clean FOG management equipment within time frequency prescribed by the City.
- B.** The City may serve any user with a written notice of violation (NOV) for failure to comply with this program. The party to whom the NOV is directed to shall be given an appropriate amount of time, as determined by the City, to correct noted deficiencies. Should measures to correct any deficiency not be completed in a timely manner as directed by the City, and measures to promote compliance have been exhausted, a summons to appear in the City of Springfield Municipal Court will then be issued to the Contact Person and/or User, or their authorized representative. The City may seek whatever remedies are authorized by the State of Missouri Statutes, City Ordinances, at law or in equity, against any person or user violating the provisions of this program. The user must pay all outstanding fees, penalties, or other utility charges prior to reinstatement of water and sewer service.
- C.** The City shall have the right to inspect the building sewer and to cause the discontinuance of water or sewer service to any property where the plumbing is not maintained to IPC Code or in a sanitary, effective, and/or efficient operating condition, or if the public sewer facilities may be harmed thereby. The remedies provided in this program shall not be exclusive and the City may seek other remedies as authorized by statute or City ordinance, at law or in equity, against any person or user violating the provisions of this program.

## **XI. Authority of Inspectors- Right of Entry**

The Director of the Department of Public Works, or designee bearing proper credentials and identification, shall be permitted to enter upon all properties without delay at any reasonable time for purposes of inspection, observation, measurement, sampling, and testing of the building sewer and all associated plumbing, or contents thereof, in accordance with the provisions of this program.

If the inspector has been refused access to a building, structure, or property, or any of its parts, and is able to demonstrate probable cause to believe that there may be a violation of this program, or there is a need to inspect and/or sample as part of an inspection, or the protection of public health is in jeopardy, then the Director may seek issuance of a court ordered administrative inspection warrant after consultation with the City Attorney and City Manager.



**MEALS INFORMATION**

- **Type of dishes/utensils used:**

Washable    Yes  No                     % Washable \_\_\_\_\_  
 Disposable    Yes  No                     % Disposable \_\_\_\_\_

**Please attach a copy of your menu along with this completed form**

- **Type of products cooked, heated, fried, or served:**

Meat                     Poultry                     Vegetables                     Seafood

Method(s) of cooking/heating: \_\_\_\_\_

**KITCHEN EQUIPMENT**

	Yes <input type="checkbox"/> No <input type="checkbox"/>	Number of Units	Size and/or Capacity
Fryer	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Charbroiler	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Grill	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Stove	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Oven	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Oven Broiler	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Wok Stove	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Other	_____	_____	_____

**Sinks (Including bar area)**

3 – Compartment	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
2 – Compartment	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
1 – Compartment	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Hand Sink	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Vegetable Prep Sink	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Mop / Floor Sink	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Utility Sink	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Garbage disposal	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Walk-in cooler	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Walk-in freezer	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Floor Drains	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____
Dishwasher (Make/Model)	Yes <input type="checkbox"/> No <input type="checkbox"/>	_____	_____

Make/Model

of Dishwasher \_\_\_\_\_ Chemical or High Temp

*Circle Applicable Dishwasher Type*

Kitchen Water Heater Tank Size (Gallons) \_\_\_\_\_ Demand (Tankless) Water Heater   
 Gas  BTU/hr \_\_\_\_\_ Electric  kW \_\_\_\_\_

**COOKING GREASE HANDLING PROCEDURES**

Grease Interceptor(s) Yes  No  Volume \_\_\_\_\_ Gallons

No. of Units \_\_\_\_\_

Under sink Grease Trap Yes  No  Size(s) \_\_\_\_\_ lb. Gpm \_\_\_\_\_

On-site Oil Dumpster Yes  No  Name of Oil Recycler \_\_\_\_\_



I certify under penalty of law that this document and all attachments were prepared under my supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowingly providing inaccurate information.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name Printed

\_\_\_\_\_  
Title

# City of Springfield, Missouri Fats, Oil, & Grease (FOG) Management Program

REGISTRATION PERMIT NUMBER \_\_\_\_\_

Issued to

*Business Name*

*3100 S. Anywhere Avenue  
Springfield, MO 65800*

The above named Food Service Establishment holder of this permit may discharge FOG bearing wastewater to the City of Springfield wastewater collection and treatment system in accordance with wastewater characteristics as identified in Chapter 120 of the Municipal Code of the City of Springfield, Missouri. Compliance with these regulations does not relieve the above named facility of its obligation to comply with any or all applicable pretreatment regulations, standards, or requirements under City, State, and Federal laws, including any such regulations, standards, requirements, or laws that may become effective during the term of this permit.

FOG Management Equipment Type and Capacity: (1) Grease Interceptor / 1,000 gallons

Required Cleaning/Maintenance Frequency: Quarterly- 4x per calendar year

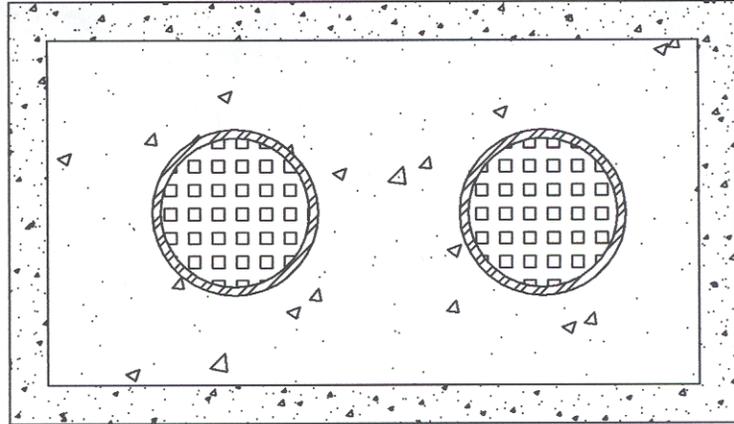
\_\_\_\_\_  
Effective Date

\_\_\_\_\_  
City of Springfield Public Works Department

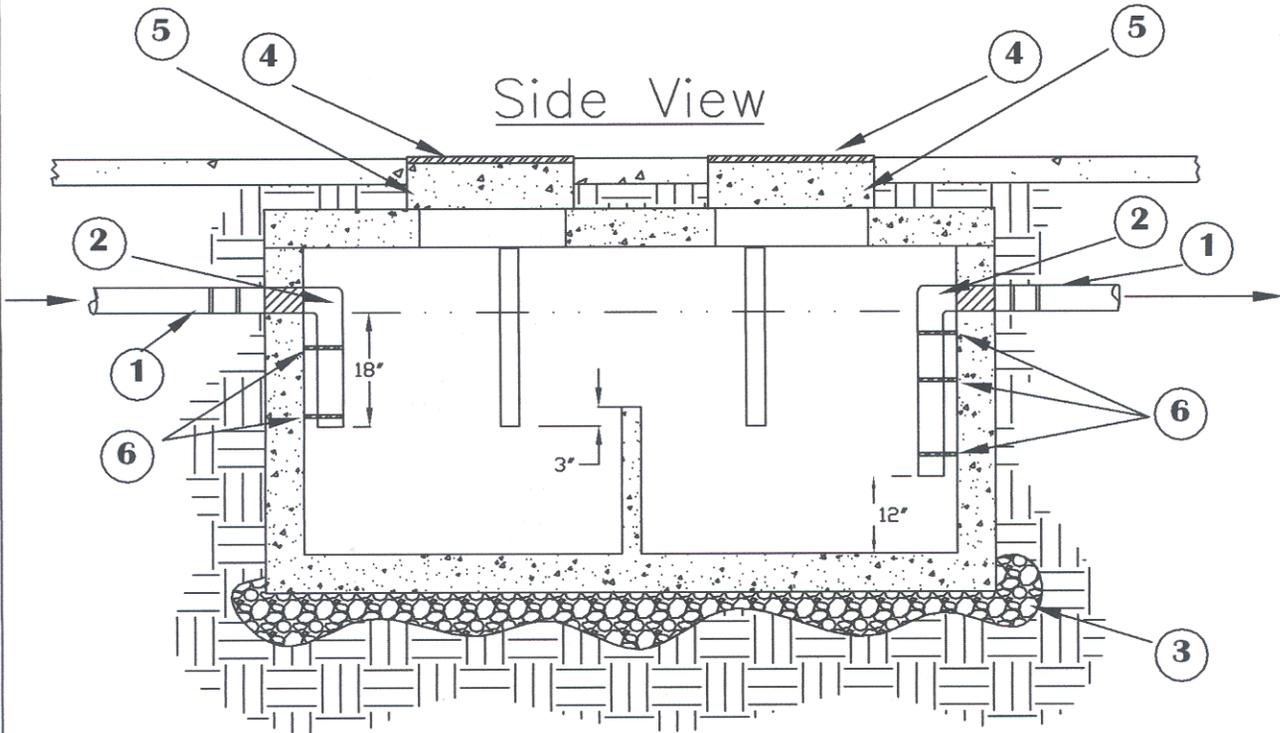
\_\_\_\_\_  
Expiration Date

# 1000 Gallon Reinforced Concrete Grease Interceptor

Top View



Side View



	Description
1	4" Inlet and Outlet Pipe
2	4" 90° Elbow or T Connection
3	4"-6" Sand or Gravel Backfill
4	Heavy Duty Cast Iron Covering
5	Concrete Adjustment Rings
6	Stainless Steel Collar & Hardware

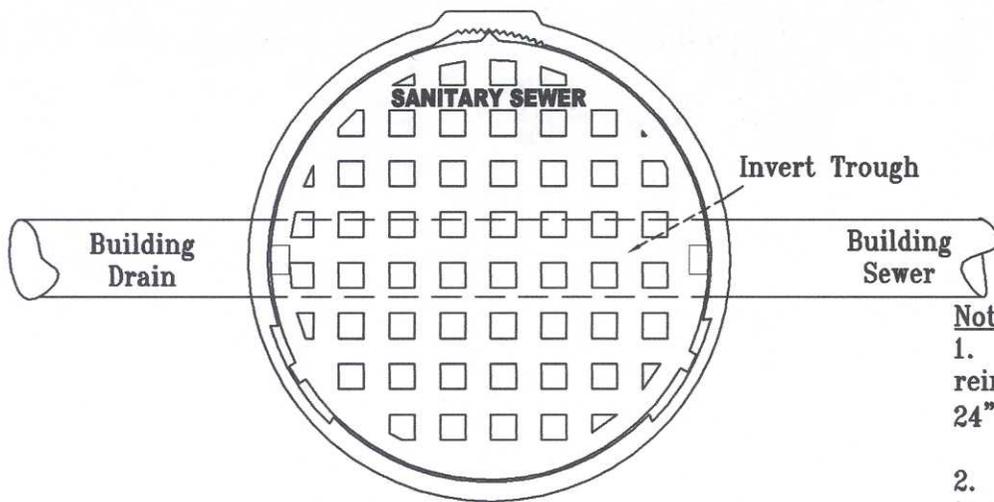
**CITY of  
SPRINGFIELD**



Typical  
Design

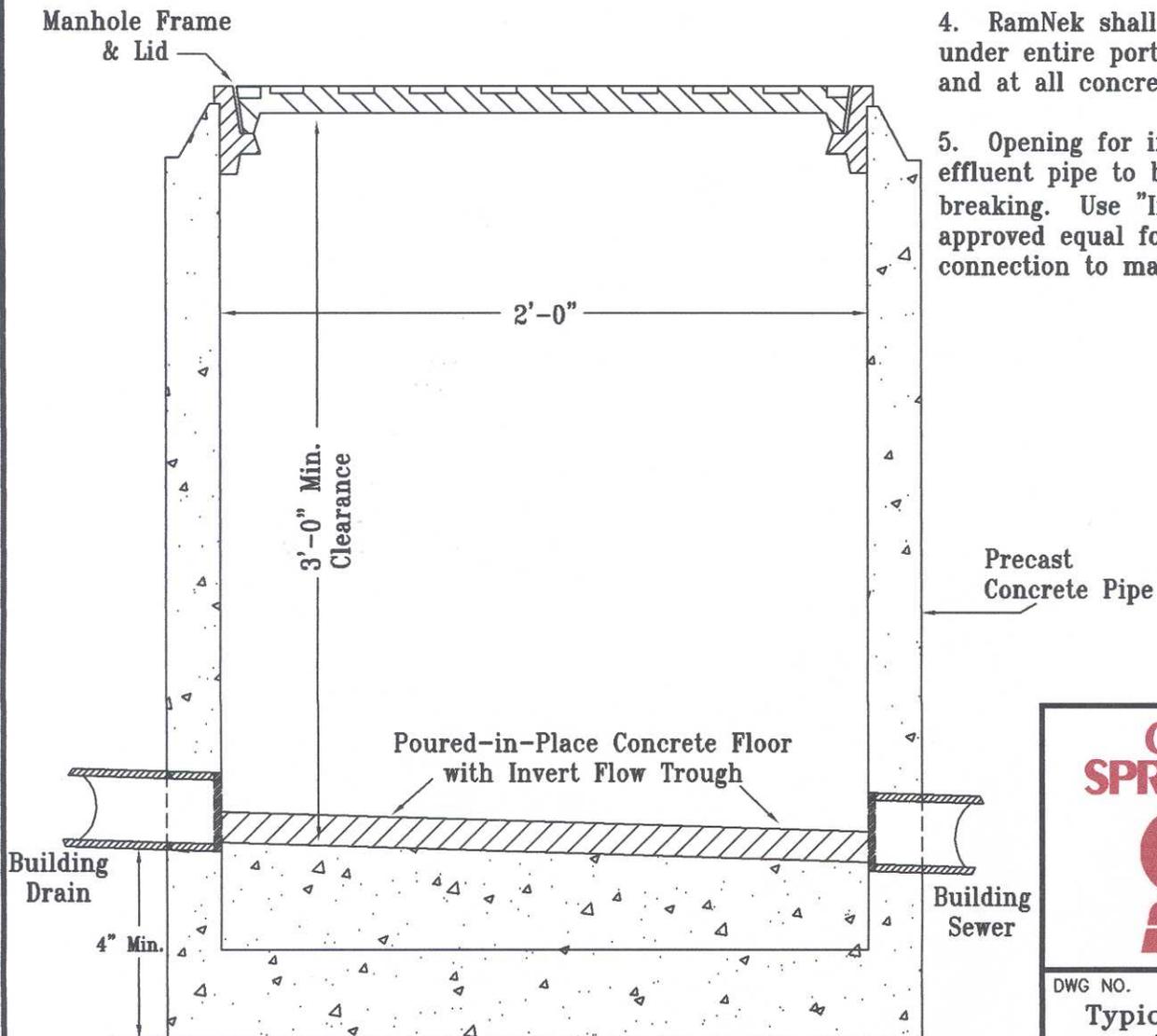
DWG NO. 1	REV 1
SCALE 30	3/05

# Typical Sampling Manhole Plan



### Notes

1. Manhole shall be standard reinforced concrete pipe section, 24" I.D. x 4'-0".
2. Manhole floor shall be poured in place concrete.
3. Frame & lid shall be Neenah Slab Type R-5900-E or equal.
4. RamNek shall be applied under entire portion of the frame and at all concrete pipe joints.
5. Opening for influent and effluent pipe to be cored without breaking. Use "Inserta-Lok" or approved equal for pipe connection to manhole.



**CITY of  
SPRINGFIELD**



DWG NO.

**Typical Sampling  
Manhole**

REV.

22 Feb 06

Scale:

None

City of Springfield  
1216 W. Nichols Street  
Springfield, Missouri 65802  
Tel. (417) 864-1925

## Pretreatment User Control Form



### Utility Department Pretreatment Section

#### OIL / GREASE WASTE MANIFEST

Generator Name \_\_\_\_\_  
Premise Address \_\_\_\_\_  
City, State, Zip \_\_\_\_\_  
Contac \_\_\_\_\_

Contact Phone \_\_\_\_\_  
Permit No. \_\_\_\_\_  
Cleaning Frequency -  
ONCE A WEEK- To be performed by owner or designated employee (complete removal of oil layer, solids and wastewater)

**GENERATOR CERTIFICATION:** I certify that the device was cleaned and no materials were pumped back into the interceptor or the City's wastewater collection system. I understand that falsification of this information is a violation of the City's Sewer Use Ordinance and subject to enforcement action in accordance with the provisions set forth in the City Code of Ordinances.

Print or Type Name

Signature

Date/Time

Cleaning Frequency

ONCE A MONTH- To be performed by the hauled contracted company (complete removal of all the waste collected in the recycling container)

Company Name \_\_\_\_\_ City, State, Zip \_\_\_\_\_  
Address \_\_\_\_\_ Phone No. \_\_\_\_\_  
Waste Hauling Permit No. \_\_\_\_\_ Type of Waste \_\_\_\_\_  
No. of Container \_\_\_\_\_  
Container(s) Capacity in gallons \_\_\_\_\_  
Amount of waste hauled \_\_\_\_\_

**TRANSPORTER CERTIFICATION:** I certify that the device was cleaned and no materials were pumped back into the interceptor or the City's wastewater collection system. I understand that falsification of this information is a violation of the City's Sewer Use Ordinance and subject to enforcement action in accordance with the provisions set forth in the City Code of Ordinances.

Print or Type Name

Signature

Date/Time

**CERTIFICATION OF RECEIPT:** The above waste was received by this facility and will be processed, disposed of or recycled in accordance with applicable laws.

Facility Name \_\_\_\_\_ Phone No. \_\_\_\_\_  
Address \_\_\_\_\_ State Permit No. \_\_\_\_\_  
City, State, Zip \_\_\_\_\_ Gallons Received \_\_\_\_\_

**CERTIFICATION OF RECEIPT:** The above waste was received by this facility and will be processed, disposed of or recycled in accordance with applicable laws.

Print or Type Name

Signature

Date/Time

**RETURN FORM TO THE GENERATOR AFTER COMPLETION**

**GENERATOR  
HAULER  
DISPOSAL**